

## WEST Search History

DATE: Wednesday, May 15, 2002

Set Name Query  
side by side

Hit Count Set Name  
result set

*DB=USPT,PGPB; PLUR=YES; OP=OR*

L13	L12 and "phage library"	16	L13
L12	L11 and peptide?	163	L12
L11	L10 and treat?	175	L11
L10	L9 and chimers	474	L10
L9	L8 and select	632	L9
L8	L3 and phage	639	L8
L7	L3 and prostate-targeted	0	L7
L6	L3 and prostate-homing	1	L6
L5	L3 and prostate-homing	0	L5
L4	L3 and bubble	2	L4
L3	L2 and (target or homing)	2281	L3
L2	"prostate cancer"	3409	L2
L1	"drug complex and prostate cancer"	0	L1

END OF SEARCH HISTORY

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FILE 'HCAPLUS' ENTERED AT 16:18:34 ON 08 MAY 2002

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FILE COVERS 1907 - 8 May 2002 VOL 136 ISS 19

FILE LAST UPDATED: 7 May 2002 (20020507/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=&gt; d que 15

L1 22 SEA FILE=REGISTRY KLAKLAKKLAKLAK|SMSIARL|SMSIARLGGKLAKLAKKLAKLA  
K/SQSP  
L3 6 SEA FILE=REGISTRY L1 AND D AND PS/FS  
L5 3 SEA FILE=HCAPLUS L3

=&gt; d ibib abs 15 1-3

L5 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS *inventors*  
ACCESSION NUMBER: 2001:545735 HCAPLUS  
DOCUMENT NUMBER: 135:117265  
TITLE: Chimeric prostate-homing peptides with pro-apoptotic activity  
INVENTOR(S): Ruoslahti, Erkki I.; Pasqualini, Renata; Arap, Wadih; Bredesen, Dale E.; Ellerby, H. Michael  
PATENT ASSIGNEE(S): The Burnham Institute, USA  
SOURCE: PCT Int. Appl., 176 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001-053342	A1	20010726	WO 2001-US1362	20010116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,				

Wo 200153342 Search completed by David Schreiber 308-4292

NO, NZ, PL

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2001046498 A1 20011129 US 2001-765086 20010117

PRIORITY APPLN. INFO.: US 2000-489582 A 20000121

US 2000-266317P P 20000121

AB The invention provides a chimeric prostate-homing peptide with pro-apoptotic activity. In a preferred embodiment, the chimeric prostate-homing pro-apoptotic peptide contains the sequence SMSIARL-GG-D(KLAKLAK)2. Methods of using such chimeric peptides for treating patients having prostate cancer also are provided.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:513459 HCAPLUS

DOCUMENT NUMBER: 133:140211

TITLE: Homing pro-apoptotic conjugates for antitumor application

INVENTOR(S): Ellerby, H. Michael; Bredesen, Dale E.; Pasqualini, Renata; Ruoslahti, Erkki I.

PATENT ASSIGNEE(S): Burnham Institute, USA

SOURCE: PCT Int. Appl., 118 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000042973	A2	20000727	WO 2000-US1602	20000121
WO 2000042973	A3	20000928		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1150701	A2	20011107	EP 2000-911617	20000121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1999-235902 A 19990122

WO 2000-US1602 W 20000121

AB The present invention provides a homing pro-apoptotic conjugate, which includes a tumor-homing mol. that selectively homes to a selected mammalian cell type or tissue linked to an antimicrobial peptide, where the conjugate is selectively internalized by the mammalian cell type or tissue and exhibits high toxicity thereto, and where the antimicrobial peptide has low mammalian cell toxicity when not linked to the tumor-homing mol. A homing pro-apoptotic conjugate of the invention can be, for example, D-amino acid-contg. sequences CNGRC-GG-D(KLAKLAK)2 or ACDCRGDCFC-GG-D(KLAKLAK)2. The conjugates of the invention are useful, for example, for treating a patient with a tumor having angiogenic vasculature.

L5 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:575965 HCAPLUS

DOCUMENT NUMBER: 131:306856

TITLE: Anti-cancer activity of targeted pro-apoptotic peptides

AUTHOR(S): Ellerby, H. Michael; Arap, Wadih; Ellerby, Lisa M.; Kain, Renate; Andrusiak, Rebecca; Del Rio, Gabriel; Krajewski, Stanislaw; Lombardo, Christian R.; Rao, Rammohan; Ruoslahti, Erkki; Bredesen, Dale E.; Pasqualini, Renata

CORPORATE SOURCE: Program on Aging and Cancer and Program on Cell Adhesion, The Burnham Institute, La Jolla, CA, 92037, USA

SOURCE: Nature Medicine (New York) (1999), 5(9), 1032-1038  
CODEN: NAMEFI; ISSN: 1078-8956

PUBLISHER: Nature America

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors have designed short peptides composed of two functional domains, one a tumor blood vessel 'homing' motif and the other a programmed cell death-inducing sequence, and synthesized them by simple peptide chem. The 'homing' domain was designed to guide the peptide to targeted cells and allow its internalization. The pro-apoptotic domain was designed to be nontoxic outside cells, but toxic when internalized into targeted cells by the disruption of mitochondrial membranes. Although the authors prototypes contain only 21 and 26 residues, they were selectively toxic to angiogenic endothelial cells and showed anti-cancer activity in mice. This approach may yield new therapeutic agents.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=&gt; d que 16

L1 22 SEA FILE=REGISTRY KLAKLAK|KLAKLAK|SMSIARL|SMSIARLGK|KLAKLAK|KLAKLA  
K/SQSP

L3 6 SEA FILE=REGISTRY L1 AND D AND PS/FS

L4 16 SEA FILE=REGISTRY L1 NOT L3

L6 19 SEA FILE=HCAPLUS L4

=&gt; d ibib abs 16 1-19

L6 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:185354 HCAPLUS

DOCUMENT NUMBER: 136:227913

TITLE: Biopanning and rapid analysis of selective interactive ligands (BRASIL)

INVENTOR(S): Arap, Wadih; Pasqualini, Renata

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 167 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020822	A2	20020314	WO 2001-US28124	20010907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,				

US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

## PRIORITY APPLN. INFO.:

US 2000-231266P P 20000908

US 2001-765101 A 20010117

AB The present invention concerns novel methods of identifying peptide sequences that selectively bind to targets. In alternative embodiments, targets may comprise cells or clumps of cells, particles attached to chems. compds., mols. or aggregates, or parasites. In preferred embodiments, target cells are sorted before exposure to the phage library. The general method, Biopanning and Rapid Anal. of Selective Interactive Ligands (BRASIL) provides for rapid and efficient sepn. of phage that bind to targets, while preserving unbound phage. BRASIL may be used in preselection procedure to subtract phage that bind non-specifically to a first target before exposing the subtracted library to a second target. Certain embodiments concern targeting peptides identified by BRASIL and methods of use of such peptides for targeted delivery of therapeutic agents or imaging agents or diagnosis or treatment of diseases. Novel compns. comprising a first phase, second phase, target and a phage library are also disclosed. BASIL is exemplified by screening for targeting peptides for (1) VEGF in HUVEC cells, (2) the Molt-4 leukemia cell line, (3) urothelial tissue (human bladder wall), (4) mesenchymal stem cells, and (5) screening for bone marrow targeting peptides.

L6 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:185320 HCAPLUS

DOCUMENT NUMBER: 136:242932

TITLE: Identification of peptide ligands for specific cell types by phage display for use in drug targeting and control of biological processes

INVENTOR(S): Arap, Wadih; Pasqualini, Renata

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 311 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020769	A1	20020314	WO 2001-US27692	20010907
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

## PRIORITY APPLN. INFO.:

US 2000-231266P P 20000908

US 2001-765101 A 20010117

AB The present invention concerns methods and compns. for in vivo and in vitro targeting. A large no. of targeting peptides directed towards human organs, tissues or cell types are disclosed. The peptides are of use for targeted delivery of therapeutic agents, including but not limited to gene therapy vectors. A novel class of gene therapy vectors is disclosed.

Certain of the disclosed peptides have therapeutic use for inhibiting angiogenesis, inhibiting tumor growth, inducing apoptosis, inhibiting pregnancy or inducing wt. loss. Methods of identifying novel targeting peptides in humans, as well as identifying endogenous receptor-ligand pairs are disclosed. Methods of identifying novel infectious agents that are causal for human disease states are also disclosed. A novel mechanism for inducing apoptosis is further disclosed.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:185278 HCAPLUS

DOCUMENT NUMBER: 136:241645

TITLE: Adenoviral targeting and manipulation of immune system response using targeting peptides

INVENTOR(S): Arap, Wadih; Pasqualini, Renata

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020724	A2	20020314	WO 2001-US28045	20010907
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2000-231266P P 20000908

US 2001-765101 A 20010117

AB The present invention concerns compns. and methods relating to the identification and use of targeting peptides. Such targeting peptides selectively home to specific organs or tissues in vivo. The novel targeting sequences disclosed herein are of use for the targeted delivery of various therapeutic agents to the targeted organ or tissue. In particular embodiments, the present invention concerns bispecific targeting reagents comprising an organ targeting peptide attached to a mol., such as a Fab fragment, that binds to a gene therapy vector or other therapeutic agent. In alternative embodiments, bispecific targeting peptides contg. an organ targeting moiety and a gene therapy or therapeutic agent targeting moiety may be obtained and used for targeted delivery. Other embodiments concern modulation of host immune system function through the targeted delivery of antigens or other mols. to lymph nodes. Numerous examples of targeting peptide sequences against adenovirus or lymph node tissue are disclosed herein.

L6 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:185277 HCAPLUS

DOCUMENT NUMBER: 136:242899

TITLE: Phage display libraries and methods for identifying targeting peptides in humans in vivo

INVENTOR(S): Arap, Wadih; Pasqualini, Renata  
 PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA  
 SOURCE: PCT Int. Appl., 269 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020723	A2	20020314	WO 2001-US28044	20010907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2000-231266P P 20000908  
 US 2001-765101 A 20010117

AB The present invention concerns methods and compns. for identifying human targeting peptides sequences. The methods used for phage display biopanning in the mouse model system require substantial improvements for use with humans. In general, humans suitable for use with phage display are either brain dead or terminal wean patients. The amt. of phage library (preferably primary library) required for administration must be significantly increased, preferably 5 orders of magnitude to 10<sup>14</sup> TU or higher, preferably administered i.v. in .apprx.200 mL of Ringer lactate soln. over about a 10-min period. To produce such large phage libraries, the transformed bacterial pellets recovered from up to 500-1000 transformations are amplified up to 10 times in the bacterial host, recovering the phage from each round of amplification and adding LB Tet medium to the bacterial pellet for collection of addnl. phage. Samples of various organs and tissues are collected starting .apprx.15 min after injection of the phage library; samples are processed and phage collected from each organ, tissue or cell type of interest for DNA sequencing to det. the amino acid sequences of targeting peptides. A substantial improvement in the biopanning technique involves polyorgan targeting. It is possible to pool phage collected from multiple organs after a first round of biopanning and inject the pooled sample into a new subject, where each of the multiple organs may be collected for phage rescue, and the protocol repeated for as many rounds of biopanning as desired. In this manner, it is possible to significantly reduce the no. of subjects required for isolation of targeting peptides for multiple organs, while still achieving substantial enrichment of the organ-homing phage. Thus, 320 targeting peptides are identified with specificity for bone marrow, adipose tissue, skeletal muscle, prostate, skin, or multiple organs. The peptides are of use for targeted delivery of therapeutic agents, including gene therapy vectors. Such targeted delivery may be used for detection, diagnosis or treatment of human diseases. In certain embodiments, the peptide may be attached to an imaging agent and administered to a human to obtain an image or to diagnose a disease state. Also disclosed are a large no. of targeting peptide sequences and consensus motifs that are selective for human organs or tissues, obtained by the methods of the present invention.

L6 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2002:185276 HCAPLUS  
 DOCUMENT NUMBER: 136:242898  
 TITLE: Screening of peptide libraries to identify highly specific ligands and cognate receptors for cell or tissue-specific targeting  
 INVENTOR(S): Arap, Wadih; Pasqualini, Renata  
 PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA  
 SOURCE: PCT Int. Appl., 298 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020722	A2	20020314	WO 2001-US27702	20010907
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2000-231266P	P 20000908
			US 2001-765101	A 20010117

AB Methods of identify cell or tissue-specific peptide ligands and their cognate receptors for use in targeted drug delivery or gene therapy. A large no. of targeting peptides directed towards human organs, tissues or cell types are disclosed. The peptides are of use for targeted delivery of therapeutic agents, including but not limited to gene therapy vectors. A novel class of gene therapy vectors is disclosed. Certain of the disclosed peptides have therapeutic use for inhibiting angiogenesis, inhibiting tumor growth, inducing apoptosis, inhibiting pregnancy or inducing wt. loss. Methods of identifying novel targeting peptides in humans, as well as identifying endogenous receptor-ligand pairs are disclosed. Methods of identifying novel infectious agents that are causal for human disease states are also disclosed. A novel mechanism for inducing apoptosis is further disclosed. Screening of a phage display library by direct incubation with bone marrow to identify bone marrow-specific ligand peptides is demonstrated. The use of circulating antibodies from prostate cancer patients to identify the antigens. One of the antigens, identified as GRP78, was a strong indicator of survival time and could be used as a prognostic marker. Successful targeting of adeno-assocd. virus-based vectors to vascular endothelium is demonstrated.

L6 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2001:832771 HCAPLUS  
 DOCUMENT NUMBER: 136:144792  
 TITLE: A proapoptotic peptide for the treatment of solid tumors  
 AUTHOR(S): Mai, Jeffrey C.; Mi, Zhibao; Kim, Seon-Hee; Ng, Bobby; Robbins, Paul D.  
 CORPORATE SOURCE: Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, Pittsburgh, PA, 15261, USA

SOURCE: Cancer Research (2001), 61(21), 7709-7712  
 CODEN: CNREA8; ISSN: 0008-5472  
 PUBLISHER: American Association for Cancer Research  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB We have designed a novel peptide, DP1, which is able to mediate significant induction of apoptosis in solid tumors by local injection. This peptide, comprised of a protein transduction domain (PTD), PTD-5, fused to an antimicrobial peptide, (KLAKLAK)2, was able to trigger rapid apoptosis in a variety of cell lines in vitro, including MCA205 murine fibrosarcomas and human head and neck tumors. Furthermore, direct injection of DP1 into day 7 established MCA205 tumors in C57BL/6 mice resulted in the induction of tumor apoptosis and subsequent redn. in tumor vol. These results suggest that DP1 may be used clin. to treat accessible solid tumors or as an adjuvant therapy in conjunction with radiotherapy, std. chemotherapy, immunotherapy, or surgical debulking.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:661478 HCAPLUS

DOCUMENT NUMBER: 135:231670

TITLE: Amino acid sequences facilitating penetration of a substance of interest into cells and/or cell nuclei

INVENTOR(S): Avrameas, Eustrate; Ternynck, Therese

PATENT ASSIGNEE(S): Diatos S.A., Fr.

SOURCE: PCT Int. Appl., 138 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064738	A2	20010907	WO 2001-FR613	20010301
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
FR 2805821	A1	20010907	FR 2000-2621	20000301

PRIORITY APPLN. INFO.: FR 2000-2621 A 20000301

AB The invention concerns an amino acid sequence capable of facilitating penetration of a substance of interest into cells and/or cell nuclei, characterized in that it is capable of reacting in vivo with aminoglycans. Optionally said sequence is derived from a protein of human origin.

L6 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:597738 HCAPLUS

DOCUMENT NUMBER: 135:149263

TITLE: Methods and compositions for treating condition of the eye.

INVENTOR(S): Miller, Joan W.; Gragoudas, Evangelos S.; Renno, Reem Z.

PATENT ASSIGNEE(S): Massachusetts Eye and Ear Infirmary, USA  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001058240	A2	20010816	WO 2001-US4231	20010209
WO 2001058240	A3	20020411		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, US, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001034979	A5	20010820	AU 2001-34979	20010209
US 2002040015	A1	20020404	US 2001-780142	20010209

PRIORITY APPLN. INFO.:  
 US 2000-181641P P 20000210  
 WO 2001-US4231 W 20010209

AB Provided are methods and compns. for the photodynamic therapy (PDT) of ocular conditions characterized by the presence of unwanted choroidal neovasculture, for example, neovascular age-related macular degeneration. The selectivity and sensitivity of the PDT method can be enhanced by combining the PDT with an anti-angiogenesis factor, for example, angiostatin or endostatin, or with an apoptosis-modulating factor. Furthermore, the selectivity and sensitivity of the PDT may be further enhanced by coupling a targeting moiety to the photosensitizer so as to target the photosensitizer to choroidal neovasculture.

L6 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:545735 HCAPLUS

DOCUMENT NUMBER: 135:117265

TITLE: Chimeric prostate-homing peptides with pro-apoptotic activity

INVENTOR(S): Ruoslahti, Erkki I.; Pasqualini, Renata; Arap, Wadih; Bredesen, Dale E.; Ellerby, H. Michael

PATENT ASSIGNEE(S): The Burnham Institute, USA

SOURCE: PCT Int. Appl., 176 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001053342	A1	20010726	WO 2001-US1362	20010116

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2001046498 A1 20011129 US 2001-765086 20010117

PRIORITY APPLN. INFO.:

US 2000-489582 A 20000121

US 2000-266317P P 20000121

AB The invention provides a chimeric prostate-homing peptide with pro-apoptotic activity. In a preferred embodiment, the chimeric prostate-homing pro-apoptotic peptide contains the sequence SMSIARL-GG-D(KLAKLAK)2. Methods of using such chimeric peptides for treating patients having prostate cancer also are provided.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:167742 HCAPLUS

DOCUMENT NUMBER: 134:218672

TITLE: Identification of peptides which facilitate uptake and transport of protein, DNA and virus into cytoplasm and nuclei of cells

INVENTOR(S): Robbins, Paul D.; Mi, Zhibao; Frizzell, Raymond; Glorioso, Joseph C.; Gambotto, Andrea

PATENT ASSIGNEE(S): University of Pittsburgh of the Commonwealth System of Higher Education, USA

SOURCE: PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001015511	A2	20010308	WO 2000-US24034	20000831
WO 2001015511	A3	20020124		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-151980P P 19990901

US 2000-188944P P 20000313

AB The present invention relates to internalizing peptides which facilitate the uptake and transport of cargo into the cytoplasm and nuclei of cells as well as methods for the identification of such peptides. The internalizing peptides of the present invention are selected for their ability to efficiently internalize cargo into a wide variety of cell types both in vivo and in vitro. The method for identification of the internalizing peptides of the present invention comprises incubating a target cell with a peptide display library, isolating peptides with internalization characteristics and detg. the ability of said peptide to internalize cargo into a cell.

L6 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:513459 HCAPLUS

DOCUMENT NUMBER: 133:140211

TITLE: Homing pro-apoptotic conjugates for antitumor application  
 INVENTOR(S): Ellerby, H. Michael; Bredesen, Dale E.; Pasqualini, Renata; Ruoslahti, Erkki I.  
 PATENT ASSIGNEE(S): Burnham Institute, USA  
 SOURCE: PCT Int. Appl., 118 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000042973	A2	20000727	WO 2000-US1602	20000121
WO 2000042973	A3	20000928		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1150701	A2	20011107	EP 2000-911617	20000121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1999-235902 A 19990122  
 WO 2000-US1602 W 20000121

AB The present invention provides a homing pro-apoptotic conjugate, which includes a tumor-homing mol. that selectively homes to a selected mammalian cell type or tissue linked to an antimicrobial peptide, where the conjugate is selectively internalized by the mammalian cell type or tissue and exhibits high toxicity thereto, and where the antimicrobial peptide has low mammalian cell toxicity when not linked to the tumor-homing mol. A homing pro-apoptotic conjugate of the invention can be, for example, D-amino acid-contg. sequences CNGRC-GG-D(KLAKLAK)2 or ACDCRGDCFC-GG-D(KLAKLAK)2. The conjugates of the invention are useful, for example, for treating a patient with a tumor having angiogenic vasculature.

L6 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:595206 HCAPLUS

DOCUMENT NUMBER: 131:223515

TITLE: Molecules that home to various selected organs or tissues for therapeutic and diagnostic use

INVENTOR(S): Rajotte, Daniel; Pasqualini, Renata; Ruoslahti, Erkki I.

PATENT ASSIGNEE(S): The Burnham Institute, USA

SOURCE: PCT Int. Appl., 193 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9946284	A2	19990916	WO 1999-US5284	19990310
WO 9946284	A3	20000406		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6232287	B1	20010515	US 1998-42107	19980313

*pub date  
= sept 16, 1999*

US 6174687	B1	20010116	US 1999-258754	19990226
CA 2323071	AA	19990916	CA 1999-2323071	19990310
AU 9930783	A1	19990927	AU 1999-30783	19990310
EP 1062232	A2	20001227	EP 1999-912400	19990310

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI

JP 2002506079	T2	20020226	JP 2000-535660	19990310
PRIORITY APPLN. INFO.:			US 1998-42107	A 19980313
			US 1999-258754	A 19990226
			WO 1999-US5284	W 19990310

OTHER SOURCE(S): MARPAT 131:223515

AB Mols. are provided that selectively home to various normal organs or tissues, including to lung, pancreas, skin, retina, prostate, ovary, lymph node, adrenal gland, liver, and gut. Also provided are mols. that selectively home to tumor-bearing organs or tissues, including to pancreas bearing a pancreatic tumor or to lung bearing a lung tumor. The invention also provides conjugates, comprising an organ- or tissue-homing mol. linked to a moiety. Such a moiety can be e.g. a therapeutic agent or a detectable agent. The invention also provides a method of identifying a membrane dipeptidase (MDP)-binding homing mol. that selectively homes to lung endothelium. The method includes contacting MDP with one or more mols. and detg. specific binding of a mol. to the MDP, where the presence of specific binding identifies the mol. as a MDP-binding homing mol. that selectively homes to lung endothelium. Such MDP-binding homing mols. can be linked to a moiety and, when administered to a subject as a conjugate, can selectively direct the moiety to lung endothelium in the subject.

L6 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:396695 HCAPLUS

DOCUMENT NUMBER: 131:223082

TITLE: Antimicrobial peptides with activity against an intracellular pathogen

AUTHOR(S): Yokum, T. S.; Elzer, P. H.; McLaughlin, M. L.

CORPORATE SOURCE: Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803, USA

SOURCE: Peptides: Frontiers of Peptide Science, Proceedings of the American Peptide Symposium, 15th, Nashville, June 14-19, 1997 (1999), Meeting Date 1997, 652-653.  
Editor(s): Tam, James P.; Kaumaya, Pravin T. P.  
Kluwer: Dordrecht, Neth.  
CODEN: 67UCAR

DOCUMENT TYPE: Conference

LANGUAGE: English

AB The in vivo and in vitro activities of a series of peptides against Brucella abortus and the proteolytic (trypsin) stability of these peptides are reported. The 19 peptides studied included naturally occurring antimicrobial peptides (melittin and cecropins, maganins) and their simplified analogs, de novo amphipathic peptides, and de novo amphipathic peptides composed of 50-80% .alpha.,.alpha.-disubstituted amino acids. Although none of the peptides showed significant direct antimicrobial activity against B. abortus in vitro, many of them significantly reduced B. abortus levels in chronically infected BALB/c mice. Most peptides composed solely of proteinogenic amino acids were sensitive to trypsin, whereas all peptides contg. .alpha.,.alpha.-disubstituted amino acids were stable. The results with B. abortus may be applied to other intracellular pathogens.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1998:545381 HCAPLUS  
 DOCUMENT NUMBER: 129:161843  
 TITLE: Preparation and antibacterial activity of amphipathic peptides  
 INVENTOR(S): McLaughlin, Mark L.; Becker, Calvin L.  
 PATENT ASSIGNEE(S): Board of Supervisors of Louisiana State University and Agricultural and Mech, USA  
 SOURCE: U.S., 26 pp. Cont. of U. S. Ser. No. 789,077, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5789542	A	19980804	US 1997-944133	19971006
PRIORITY APPLN. INFO.:			US 1994-232525	19940422
			US 1996-681075	19960722
			US 1997-789077	19970203

AB Minimalist lytic peptides are disclosed that may be readily synthesized on a large scale via a highly-convergent, soln.-phase synthesis. The peptides are amphipathic, and are easy and inexpensive to synthesize via soln. phase techniques. The peptides exhibit antibacterial properties at concns. that are not lethal to normal mammalian cells. The peptides comprise multimers, i.e. two or more repeats, of certain heptads of amino acid residues. The heptads were designed to generate amphipathic peptides when the heptads are combined into multimers, and were further designed to be readily suited for convergent, soln.-phase synthesis. The preferred heptads are described generically by one of the following four formulas Xps1-Xnpl-Xnp2-Xps1-Xnpl-Xnp2-Xps, Xps-Xnpl-Xnp2-Xps1-Xnpl-Xnp2-Xps1, Xps1-Xnpl-Xnp2-Xps-Xps1-Xnpl-Xnp2, or Xps-Xps1-Xnpl-Xnp2-Xps1-Xnpl-Xnp2 (Xps = pos. charged amino acid at physiol. pH; Xnp = a nonpolar amino acid at physiol. pH). Other heptads are also disclosed. Thus, H-(Lys-Leu-Ala-Lys-Lys-Leu-Ala)<sub>2</sub>-OMe, prepd. by either soln. or solid-phase methods, inhibited a variety of bacteria with MIC = 4.2 to 17 .mu.M.

L6 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1997:473666 HCAPLUS  
 DOCUMENT NUMBER: 127:136062  
 TITLE: Self-Assembly of Designed Antimicrobial Peptides in Solution and Micelles  
 AUTHOR(S): Javadpour, Maryam M.; Barkley, Mary D.  
 CORPORATE SOURCE: Departments of Chemistry and Biochemistry, Louisiana State University, Baton Rouge, LA, 70803, USA  
 SOURCE: Biochemistry (1997), 36(31), 9540-9549  
 CODEN: BICHAW; ISSN: 0006-2960  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Hydrophobic interactions are responsible for stabilizing Leu zippers in peptides contg. heptad repeats. The effects of substituting Leu by Phe and Ala by Gly on the self-assembly of coiled-coils were examd. in minimalist antimicrobial peptides designed to form amphipathic .alpha.-helixes. The secondary structure of these peptides was monitored in soln. and in diposphocholine (DPC) micelles using CD spectroscopy.

The Leu peptides (Lys-Leu-Ala-Lys-Leu-Ala-Lys)<sub>3</sub> and (Lys-Leu-Ala-Lys-Lys-Leu-Ala)<sub>n</sub> ( $n = 3, 4$ ) become  $\alpha$ -helical with increasing concns. of salt, peptide, and DPC. The aggregation state and equil. const. for self-assocn. of the peptides were measured by sedimentation equil. The Gly peptide (Lys-Leu-Gly-Lys-Lys-Leu-Gly)<sub>3</sub> does not self-assoc. The Leu peptides and Phe peptides (Lys-Phe-Ala-Lys-Phe-Ala-Lys)<sub>3</sub> and (Lys-Phe-Ala-Lys-Lys-Phe-Ala)<sub>n</sub> ( $n = 3, 4$ ) are in a monomer-tetramer equil. in soln., with the Phe zippers being 2-4 kcal/mol less stable than the equiv. Leu zippers. Thermodyn. parameters for the assocn. reaction were calcd. from the temp. dependence of the assocn. consts. Leu zipper formation has  $\Delta C_p = 0$ , whereas Phe zipper formation has a small neg.  $\Delta C_p$ , presumably due to the removal of the larger surface area of Phe from water. Self-assocn. of the peptides is coupled to formation of a hydrophobic core as detected using 1-anilino-naphthalene-8-sulfonate fluorescence. Carboxyfluorescein-labeled peptides were used to det. the aggregation state of (Lys-Leu-Ala-Lys-Lys-Leu-Ala)<sub>3</sub> and (Lys-Leu-Gly-Lys-Lys-Leu-Gly)<sub>3</sub> in DPC micelles. (Lys-Leu-Ala-Lys-Lys-Leu-Ala)<sub>3</sub> forms dimers, and (Lys-Leu-Gly-Lys-Lys-Leu-Gly)<sub>3</sub> is a monomer. Aggregation appears to correlate with the cytotoxicity of these peptides.

L6 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:696002 HCAPLUS  
 DOCUMENT NUMBER: 126:19272  
 TITLE: Structure-function studies of de novo lytic peptides  
 AUTHOR(S): McLaughlin, M. L.; Javadpour, M.; Bishop, S. M.;  
 Cowell, S. M.; Becker, C. L.; Lo, J.; Juban, M. M.;  
 Morden, K. M.  
 CORPORATE SOURCE: Departments Chemistry, Louisiana State University,  
 Baton Rouge, LA, 70803, USA  
 SOURCE: Pept.: Chem., Struct. Biol., Proc. Am. Pept. Symp.,  
 14th (1996), Meeting Date 1995, 569-570. Editor(s):  
 Kaumaya, Pravin T. P.; Hodges, Robert S. Mayflower  
 Scientific: Kingswinford, UK.  
 CODEN: 63NTAF  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 AB A report from a symposium on the prepn., bactericidal activity, sublethal  
 concn. (SLC) against mammalian fibroblasts, and helical conformation of  
 amphipathic triad/heptad repeat peptides related to cecropins and  
 magainins.

L6 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:637874 HCAPLUS  
 DOCUMENT NUMBER: 126:23316  
 TITLE: Static light scattering instrument for rapid and  
 time-resolved particle sizing in polymer and colloid  
 solutions  
 AUTHOR(S): Wright, Lucille Smith; Chowdhury, Aslam; Russo, Paul  
 CORPORATE SOURCE: Dep. Chem. Macromol. Studies Group, Louisiana State  
 Univ., Baton Rouge, LA, 70803, USA  
 SOURCE: Rev. Sci. Instrum. (1996), 67(10), 3645-3648  
 CODEN: RSINAK; ISSN: 0034-6748  
 PUBLISHER: American Institute of Physics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A static light scattering instrument capable of time-resolved intensity  
 measurements for polymers and colloids in dil. soln. is described. An  
 optical multichannel analyzer reports (with an ultimate time resolu. of 15  
 ms) the scattered intensity in any angular range spanning 40.degree..

Data acquisition software allows for the rapid collection of intensity data in a timed sequence. This instrument is esp. useful for following size changes in large (> .apprx. 30 nm) polymers or colloids. The instrument was applied successfully to study the interaction of an antimicrobial peptide ((KLAKKLA)<sub>3</sub>) with large unilamellar vesicles composed of dioleoylphosphatidylcholine (DOPC). For a 10:1 lipid to peptide ratio, (KLAKKLA)<sub>3</sub> induces a 20% increase in the av. radius of a DOPC vesicle suspension. The interaction is complete within 5 min, but most of the change occurs in the 1st 200 s after peptide addn.

L6 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:422510 HCAPLUS

DOCUMENT NUMBER: 125:168623

TITLE: De Novo Antimicrobial Peptides with Low Mammalian Cell Toxicity

AUTHOR(S): Javadpour, Maryam M.; Juban, Martha M.; Lo, Wai-Chun J.; Bishop, Steven M.; Alberty, J. Brannon; Cowell, Scott M.; Becker, Calvin L.; McLaughlin, Mark L.

CORPORATE SOURCE: Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803, USA

SOURCE: J. Med. Chem. (1996), 39(16), 3107-3113

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

AB De novo antimicrobial peptides with the sequences H-(Lys-Leu-Ala-Lys-Lys-Leu-Ala)<sub>n</sub>-NH<sub>2</sub>, H-(Lys-Leu-Ala-Lys-Leu-Ala-Lys)<sub>n</sub>-NH<sub>2</sub> (n = 1, 2, 3), H-(Lys-Ala-Leu-Lys-Ala-Leu-Lys)<sub>3</sub>-NH<sub>2</sub>, H-(Lys-Leu-Gly-Lys-Lys-Leu-Gly)<sub>n</sub>-NH<sub>2</sub>, and H-(Lys-Ala-Ala-Lys-Lys-Ala-Ala)<sub>n</sub>-NH<sub>2</sub> (n = 2, 3), were prepd. These peptides were designed to be perfectly amphipathic in helical conformations. Peptide antibacterial activity was tested against *Escherichia coli*, *Pseudomonas aeruginosa*, and *Staphylococcus aureus*. Peptide cytotoxicity was tested against human erythrocytes and 3T3 mouse fibroblasts. The 3T3 cell testing was a much more sensitive test of cytotoxicity. The peptides were much less lytic toward human erythrocytes than 3T3 cells. Peptide secondary structure in aq. soln., SDS micelles, and phospholipid vesicles was estd. using CD. The Leu/Ala-contg. 21-mers were bacteriostatic at 3-8 .mu.M and cytotoxic to 3T3 cells at about 10 .mu.M concns. The Leu/Ala- or Leu/Gly-contg. 14-mers and the Leu/Gly 21-mer were bacteriostatic at 6-22 .mu.M but had much lower cytotoxicity toward 3T3 cells and higher selectivities than the natural antimicrobial peptides magainin 2 amide and cecropin B amide. The 7-mer peptides are devoid of biol. activity and of secondary structure in membrane mimetic environments. The 14-mer peptides and the Gly-contg. 21-mer show modest levels of helicity in model membranes. The Leu/Ala-contg. 21-mer peptides have substantial helicity in model membranes. The propensity to .alpha.-helical conformation of the peptides in amphipathic media is proportional to their 3T3 cell cytotoxicity.

L6 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:623439 HCAPLUS

DOCUMENT NUMBER: 115:223439

TITLE: Lytic peptides and their use for inhibiting microbial infections and cancer and for stimulating fibroblast and lymphocyte proliferation

INVENTOR(S): Jaynes, Jesse M.

PATENT ASSIGNEE(S): Louisiana State University, Agricultural and Mechanical College, USA

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9012866	A1	19901101	WO 1990-US1945	19900410
W: AU, CA, FI, KR, NO				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
CA 2032527	AA	19901011	CA 1990-2032527	19900410
AU 9054331	A1	19901116	AU 1990-54331	19900410
EP 470974	A1	19920219	EP 1990-906453	19900410
EP 470974	B1	20000126		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AT 189231	E	20000215	AT 1990-906453	19900410
EP 1004595	A2	20000531	EP 1999-122942	19900410
EP 1004595	A3	20001102		
R: CH, DE, FR, GB, IT, LI				
US 5861478	A	19990119	US 1995-301736	19950906
US 6255282	B1	20010703	US 1999-232153	19990115
US 2002025918	A1	20020228	US 2001-898576	20010703

## PRIORITY APPLN. INFO.:

US 1989-336181	A	19890410
US 1987-69653	B2	19870706
US 1987-102175	A2	19870929
EP 1990-906453	A3	19900410
WO 1990-US1945	A	19900410
US 1992-846771	B1	19920306
US 1992-976681	B1	19921116
US 1994-301736	A3	19940906
US 1995-301736	A3	19950906
US 1999-232153	A3	19990115

AB Synthetic lytic and proliferative peptides are constructed to encompass the structural features assocd. with lytic and proliferative activity, i.e. aligned amphipathic .alpha.-helical conformation with pos. charge d. These peptides are effective agents in the treatment of microbial infections, including gram neg. and gram pos. bacteria, fungi, viruses, yeast, and protozoa, in the lysis of cancer cells, and in the stimulation of fibroblast and lymphocyte proliferation. Addnl. functions include synergy and use as general adjuvants and in the enhancement of wound healing. Compns. particularly contain human .beta.-fibrin signal peptide. Catfish fingerlings infected with Edwardsiella ictaluri were injected i.p. with lytic peptide LSB-37 in saline once per day for 4 days. LSB-37 was successful in reducing the lethal effects of the infection. Peptide Vishnu-3, which is devoid of lytic activity, was a potent stimulator of white blood cell proliferation. Peptides were synthesized by solid phase synthesis.